

Patent Claims

1. Applicator for an electrosurgical instrument, alternatively for argon-plasma coagulation as well as for cutting, also argon-supported, comprising:
 - a gas and a high frequency current terminal,
 - a cutting electrode attached to a gas and high frequency current supply pipe,
 - an insulating cap for detachably fastening the applicator on a handle of the instrument, and
 - an insulating casing tube displaceable relative to the common longitudinal axis of the applicator for exposing or covering the cutting electrode, with the casing tube surrounding the gas and high frequency current supply pipe over a longitudinal section, and a collar or an external right-angle bend at the distal end of the casing tube,characterized in that
at least one radially surrounding gas-sealing inhibiting device is arranged between the inside of the casing tube and the outside of the gas and high frequency current supply pipe, wherein the inhibiting device allows that the respective position be frictionally fixed at any location of the path of displacement of the casing tube.
2. Applicator according to claim 1, characterized in that the inhibiting device is located in the portion of a proximal extension of the insulating cap.
3. Applicator according to claim 2, characterized in that the path of displacement is defined by a hitting contact of the collar or the external right-angle bend on the casing tube with an inwardly projecting edge of the proximal extension of the cap, on the one hand, and with a portion for fastening the current supply pipe provided in the cap, on the other hand.
4. Applicator according to one of the preceding claims, characterized in that a consumption-resistant hollow cylindrical, partially outwardly projecting insert is arranged at the proximal outer end of the casing tube.

5. Applicator according to one of the preceding claims, characterized in that the current supply pipe has a radially surrounding groove or a corresponding notch on its outside for accommodating the inhibiting device.
6. Applicator according to one of claims 1 to 4, characterized in that the casing tube has an inwardly directed, radially surrounding groove or a corresponding notch for accommodating the inhibiting device.
7. Applicator according to one of the preceding claims, characterized in that the inhibiting device comprises an O-ring, a profiled elastic sealing strip and/or a closed leaf spring.
8. Applicator according to claim 3, characterized in that the collar or the external right-angle bend at the distal end of the casing tube effect, in conjunction with a cylindrical inner recess of the cap extension, an additional radial and axial guidance for the casing tube.
9. Applicator according to one of claims 3 to 8, characterized in that the collar or the external right-angle bend comprise a groove for accommodating an additional inhibiting device.
10. Applicator according to claim 9, characterized in that the additional inhibiting device is an elastic sealing ring.
11. Applicator according to one of the preceding claims, characterized in that the insulating cap has the shape of a truncated cone, with a cap closing piece being inserted into a hollow cylindrical recess of the upper surface of the truncated cone.
12. Applicator according to claims 2 and 11, characterized in that the cap closing piece forms the proximal extension of the cap.

13. Applicator according to claims 11 or 12, characterized in that the cap closing piece has an internal collar at the outer end.
14. Applicator according to claims 11 to 13, characterized in that the distal end of the casing tube is guided and retained by the cap closing piece.
15. Applicator according to claim 4, characterized in that the consumption-resistant insert is made of ceramics.
16. Applicator according to one of the preceding claims, characterized in that the cutting electrode is attached at the proximal end of the inside of the gas and high frequency current supply pipe.
17. Applicator according to claim 16, characterized in that the cutting electrode comprises a fastening support pipe at its distal end.
18. Applicator according to claim 17, characterized in that the cutting electrode can be adjusted via the fastening support pipe for obtaining a substantially coaxial position relative to the casing tube or the consumption-resistant insert, for achieving an optimal surrounding gas flow in all cases in which the applicator is used.
19. Applicator according to one of claims 11 to 14, characterized in that the cap closing piece is integrally connected to the hollow cylindrical recess of the cap, preferably by gluing.